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Forming Cow Testing Associations

College Park, Md., Sept. 18.

County Demonstration agents in milk producing sections of the State are actively co-operating with G. E. Wolcott, in charge of dairy extension, in the organization of cow testing associations. With the efforts which are being made by milk producers to secure an increased price for their milk, the value of accurate records of their production is becoming more and more apparent. Through the cow testing association the individual dairyman is able to judge accurately of the returns he is receiving. The method of organizing a cow testing association and its operation is well described in Bulletin No. 187 of the Maryland Agricultural Experiment Station which reads as follows:

"Cow testing associations are local organizations including not more than 26 dairymen. The association employes a tester, who visits the farm of each member one day during the month. The tester arrives at the farm in the afternoon. While the evening milking is being done, he weighs the milk produced by each cow. At the same time he takes a sample of each cow's milk, which is placed in a small bottle. The feed consumed by each cow is recorded in the stable book beside the weight of her milk. The next morning the weight of each cow's milk is recorded in its proper place. A sample of her milk is also taken and added to the sample that was saved the evening before; thus making a composite sample, which is later tested for percentage of butterfat according to the Babcock method. The total weight of the two milkings constitute a day's yield, and is used as a basis for estimating the production for the month. The dairyman knows the market price of his feeds, and the tester has the amount of each feed consumed by every cow in the herd, recorded in the stable book; so it is easy to calculate the cost of feed for the month. After the morning's milking, the tester makes the determinations for percentage of fat in each cow's milk. He then makes the calculations for the month which include the amount of milk and fat produced, the value of the product, the cost of feed, the profit or loss, the returns for one dollar expended for feed, the feed cost of producing 100 pounds of milk, and the feed cost of producing one pound of fat. This record is made for each cow in the herd, a copy of which is left with the dairyman. Before leaving the farm, the tester makes a summary which gives the total production of the herd for the month. At the end of twelve months the yearly summary is compiled, which gives the record of each cow in the herd for the year just ended."

Preventing Stinking Smut In Wheat

College Park, Md., Sept. 18.

The treatment of seed wheat for stinking smut in Somerset county is reported to the Extension Service by County Agent H. S. Lippincott. He states that he has made arrangements for the treatment of over three hundred bushels under his supervision. Seed wheat affected with smut is best treated according to the directions issued by the Maryland Agricultural Experiment Station in a circular prepared by Nickolas Schmitz, in charge of farm crops. In this circular Professor Schmitz says:

"There are two kinds of smut commonly found in the State, 'loose' smut and 'stinking' smut. The former appears in the heads just before ripening and is of little importance, never doing more than one per cent damage. The 'stinking' smut is the one that causes so much harm, and the best method of eradication is to treat the seed with formalin as follows:

"Buy from your druggist, guaranteed formalin (40 per cent solution of formaldehyde.) Pour one pint (one pound) into 40 to 45 gallons of water and mix thoroughly. Put the grain to be treated in a basket (one half bushel at a time,) or in sacks, and plunge the grain into the solution until completely submerged. Do this over and over for a moment until every grain is thoroughly wet. Then raise the sack or basket to allow the solutiun to drain back. Next place the sacks where they will drain completely or dump the grain out in a pile. Cover the pile with sacks or canvas and allow it to remain in this way for twelve hours or more. Then the grain should be spread out on a clean floor to dry. This amount of solution should be sufficient for treating 40 to 50 bushels of wheat. A good plan is to treat the seed in the evening and let it lie in the covered pile until morning. About one gallon of the solution will be required for every bushel of grain.

"Another method is to sprinkle the solution on, instead of immersing the grain. According to this method, the seed should be spread out thinly

over a floor and the solution applied with a sprinkling can or with a spray pump throwing a fine spray. While the solution is being applied, the grain should be stirred constantly with a hoe, shovel or garden rake, until every grain is thoroughly wet. About three quarts of the solution to the bushel will be required. After the grain is thoroughly wet, it may be put in a pile, and allowed to remain this way for the same length of time as stated above.

"Treated seed may be sown the following day after it has been spread out to dry, or it may be thoroughly dried and kept indefinitely. If sown soon after treatment, the drill should be set to sow from ¼ to ⅓ more than for a normal seeding of thoroughly dry seed."

Farmers Investigate Soy Bean Industry

College Park, Md., Sept. 18.

Ten farmers of Queen Anne county joined with their county agent, E. F. White, in a unique excursion to Georgetown, Del., in the heart of the soy bean country. The trip was made for the purpose of studying the soy bean crop with a view to introducing them into their own section on an extensive scale. In connection with the trip, County Agent White reported: "We study the industry carefully with the result that every man in the party contemplates growing from five to ten acres of soy beans next season. When the full value of this crop is known, especially as a feed for dairy cows, it will not be long before the soy bean ranks with corn, grasses, alfalfa, wheat and other staple crops." This assertion is borne out by the experience of the Maryland Experiment Station, the following statement having been recently made by Prof. Nickolas Schmitz, in charge of farm crops:

"Investigations of this station, as well as the results of many practical farmers over the State have shown clearly that on every dairy and live stock farm where alfalfa cannot be readily grown, soy beans deserve a permanent place on account of the high feeding value of the hay and the seed. Aside from this, in Maryland, especially on the Eastern Shore and in Southern Maryland where wheat is not a paying crop, they should replace wheat to a large extent as a ready money crop. They will yield from 10 to 35 bushels of seed per acre, and the seed for the last few years has been selling for from $1.50 to $3.00 per bushel. Besides this, soy beans increases the fertility of the soil instead of depleting it as is the case with wheat. Furthermore, the expense of growing a crop of soy beans is less than for growing a crop of wheat, and the soy bean vines left from threshing are readily eaten by stock, and have a much higher feeding value than wheat straw. The culture of soy beans does not require extra labor or special machinery in curing and harvesting the crop, the ordinary farm equipment will meet the requirements.

Importance of Cover Crops Urged

College Park, Md., Sept. 18.

The importance of cover crops is being especially urged on farmers of Wicomico county by County Agent W. C. Vail. Reports from Southern Maryland also indicate that County Agents in that section are active in promoting the growing of cover crops to prevent soil washing and improve fertility. In the agricultural lessons issued in the special number of the Maryland State College Bulletin, 'Elementary Vocational Agriculture for Maryland Schools' for use by rural teachers and leaders of Boys' Agricultural Clubs, some timely information regarding the use and sowing of cover crops is offered as follows:

"During the summer and early fall much unused plant food is made available in the soil by the action of bacteria or small plant life organisms. If such soil is left unprotected during the fall and winter months the weathering agencies leach out and wash away this available food. There are certain hardy plants that may be grown on the land during the fall, winter and early spring. These utilize the available plant food, protect the land from washing by forming a mass of roots in the soil and a coat on its surface, provide grazing for farm animals during the fall and early spring and return plant food to the soil when plowed under in the spring.

"There are two general classes of cover crops adapted to Maryland conditions; namely, small grains and grasses such as rye, barley, oats, wheat and timothy, and legumes, such as crimson clover and vetch. In all sections of the State where wheat and grasses are grown they form a winter cover for the land. These crops usually follow corn or sod. Rye, barley, oats, vetch and crimson clover may be used as a winter cover for land that has produced a crop of corn, tomatoes, potatoes or the like. Rye, barley and vetch are preferable in western and northern Maryland, and crimson clover and oats in the southern portions of the State.

"Dates of seeding for wheat and timothy range from the middle of September in the mountain section to the first of November in the southern part of the State. The same is true of rye, barley and oats. Crimson clover and vetch should be sown at least a month earlier where practicable to do so.

"Wheat and timothy: wheat 1 to 1½ bushels, timothy 10 pounds; rye 1 to 1½ bushels; crimson clover 12 to 20 pounds, depending on the date of planting. The later the planting, the more seed should be used. Vetch 25 to 30 pounds with 1¼ bushels oats, ½ to ¾ bushel rye, or ¾ to 1 bushel wheat.

Wheat and timothy, rye, vetch and grain, barley, oats, and clover should be seeded with a grain drill—one-horse if in standing crop, two-horse if on open land. When crimson clover is hand seeded the land should be previously prepared and the seed should be lightly covered.